

FCC and the LAW

It is unclear in the law whether or not the FCC really has legal jurisdiction over unlicensed broadcasters that broadcast signals that don't cross state boundaries. Most people give the FCC the benefit of the doubt since they are a government agency and have much more ammunition than the average unlicensed broadcaster. Much like taxpayers and the IRS. But as you shall see later the FCC's jurisdiction may be resolved in the near future.



Unlicensed operation of transmitting devices is discussed in "Part 15" of the FCC Rules. These Rules are published in a maximum of 100 "Parts," covering all aspects of telecommunications. A complete set of these rules should be available at your local Public Library. If you have questions about the legalities of operating any of the projects in this book that are not covered here or are unclear, please consult these Regulations.

Part 15 covers "wireless microphones" and "unlicensed broadcast band" transmitters for a number of different frequencies. While Part 15 allows 100 milliwatts output power for unlicensed, home-built transmitting devices, on the FM broadcast band your allowable power output is measured in a different way.

On the FM broadcast band you are not allowed to transmit a signal that would cause a field strength greater than 250 microvolts (uV) at a distance of 3 meters from the antenna. You may be asking yourself "what does this mean in real terms?" The answer is a difficult one to answer. You could have a transmitter that generates 100mw running into one antenna that is legal and have another transmitter that generates 10mw into another antenna that is twice or more this legal limit. This depends mostly on how efficient your antenna and feedline are.

It is the Authors opinion that these regulations regarding FM broadcast band field strength could of been written by Machiavelli himself. Most of the "bugs", FM broadcaster kits, and Mr. Microphones that are available on the open market today can easily exceed these regulations. To be able to follow this regulation you would need a calibrated field strength meter that could measure field strengths accurately down to about 100 uV, and use it every time you broadcast, even with your Radio Shack Mr. Microphone.

Other regulations for the FM broadcast band include :

- The transmitter must NEVER be tuned to a frequency above 108 MHz. FCC Rule 15.205 lists the frequency range between 108 to 121.94 as restricted, due to potential interference with aircraft navigation equipment.
- The bandwidth (or amount of spectrum your transmission can occupy) of your transmission is limited to 200 kHz centered on the actual operating frequency. This is plenty of room for a stereo signal and several subcarriers.
- It is the sole responsibility of the builder-user of any FM broadcast-band device to research and fully avoid any and all interference to licensed FM broadcast transmission and reception.

There is much more in the Part 15 Rules. FM broadcast band usage is specifically addressed in Rule No. 15.239. Please consult the rules for more info.

FCC and Reality

The FCC, at least at the time of the writing this, is not a gestapo type government entity like the IRS. Mostly they are your typical government licensing agency concerned in what is perceived the "greater good" for the "people" of our country. They have no law enforcement ability by themselves and rely mostly on enforcing there regulations by fines, usually to licensed radio operations that could have there licence taken away for failure to comply to regulations or pay fines.

In the case of unlicensed broadcasters things get a little more tricky. The FCC's recourse is to take a fined unlicensed broadcaster to civil court. This rarely happens. In most cases the unlicensed broadcaster stops broadcasting and pays the fine or broadcaster stops broadcasting and doesn't pay the fine. In the latter case the FCC rarely goes after the broadcaster for the fine and the whole matter is dropped.

The FCC doesn't drive the streets at night looking for unlicensed broadcasters. In almost all cases the FCC will not go after an unlicensed broadcaster unless there has been complaints about the broadcaster. Most of these complaints are generated from licensed broadcasters. Rarely does the FCC get complaints that the unlicensed broadcaster is creating interfering. There have also been a few cases where legitimate broadcasters complain about unlicensed broadcasters because they were taking to many listeners away.

The FCC does have vans that resemble small moterhomes that they use for enforcement of there regulations, but these vans are usually used for licensed enforcement. For unlicensed enforcement the FCC usually uses there specially modified station wagons. These cars have specially fitted fiberglass roofs with antennas mounted in them. Both the vans and the cars, contrary to popular belief, usually have no antennas hanging off them. All the antennas are encased in the body or in plastic containers on there roofs.

FCC and Recent Busts

Since the micro power radio movement has been gaining lots of momentum lately, there has been a corresponding number of people served with "notices of apparent violation", which basically mean "We (the FCC) know/think you are broadcasting illegally". The fines levied have been much higher than have been issued in the past for unlicensed operation.

There has been one crowning difference between the most recent "busts" and the older ones. This is that the unlicensed operators have been running high profile radio stations. While there has been many documented cases in the past of college students running for years with their low profile station without a peep out of the FCC, these guys are thumbing their noses at the FCC, the licensed broadcasters, and the government. High profile, media campaigns, and anti-establishment broadcasts are prevalent. And like any government agency, the FCC wants to make an example out of these broadcasters before "more disruption" occurs. In short they are trying to put the cap back in the bottle before the genie gets out.

These high profile stations, Black Liberation Radio, KAPW, Free Radio Berkeley and San Francisco Liberation Radio have lined up to do battle with the FCC the all American way, with lawyers. It will be interesting to see if these suits will resolve any of the questions about the FCC's jurisdiction, and the status of unlicensed broadcasting.

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